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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/527,010	03/07/2005	Barbara Hildegard Pause		1121

7590 03/08/2007  
Barbara Pause  
7161 Christopher Court  
Longmont, CO 80503

EXAMINER
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RUDDOCK, ULA CORINNA

ART UNIT	PAPER NUMBER
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1771

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/08/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	Application No. 10/527,010	Applicant(s) PAUSE, BARBARA HILDEGARD	
	Examiner Ula C. Ruddock	Art Unit 1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 6 and 8-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 6, 8, and 11 claim "replacing" one layer for another. However, these claims are vague and indefinite because it is unclear to the Examiner whether the replaced layer (i.e. barrier layer) is required in the composite. The claims appear to contain grammatical errors.

Correction is required.

3. Claims 9 and 10 recite the limitation "the elastomeric material" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Correction is required.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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5. Claims 1, 4, 5, 7, 13-15, and 17-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Worley et al. (US 2003/0054141). Worley et al. disclose a coated article having enhanced reversible thermal properties. The coated article may be used in apparel and footwear (abstract). The substrate of the article may be a nonwoven fabric or a film [0016]. The coating may be formed from a polymeric material that has a temperature regulating material dispersed therein [0017]. The temperature regulating material will comprise one or more phase change materials [0032]. Examples of the phase change materials include hydrocarbons such as those listed on page 2 of the present specification (i.e. heneicosane, eicosane, nonadecane, octadecane, heptadecane, and hexadecane) and salt hydrates such as those listed on page 3 of the present specification (i.e. calcium chloride hexahydrate, lithium nitrate trihydrate, and sodium sulfate decahydrate) [0035 and Table 1]. These phase change materials having melting points ranging from 18.2-40.5°C.

***Claim Rejections - 35 USC § 102/103***

6. Claim 21 is rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Worley et al. (US 2003/0054141). Worley et al. disclose the claimed invention except for the specific teaching that the article has a latent heat storage capacity between 40 KJ and 60 kJ.

Although Worley et al. do not explicitly teach the claimed latent heat storage capacity, it is reasonable to presume that this property is inherent to the Worley et al. invention. Support for said presumption is found in the use of like materials (i.e. nonwoven article comprising hydrocarbon or salt hydrate phase change materials dispersed within a polymeric material, wherein

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the phase change materials have a melting point of 18.2-40.5°C). The burden is upon Applicant to prove otherwise. *In re Fitzgerald*, 205 USPQ 594. In addition, the presently claimed property of a has a latent heat storage capacity between 40 KJ and 60 kJ would obviously have been present once the Worley et al. product is provided. Note *In re Best*, 195 USPQ at 433, footnote 4 (CCPA 1977) as to the providing of this rejection made above under 35 USC 102.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 12 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Worley et al. (US 2003/0054141), as set forth above. Worley et al. disclose the claimed invention except for the different configurations claimed in the present invention (i.e. two barrier films and an inner fabric or a fabric and film). It would have been obvious to one having ordinary skill in the art to have used an additional film layer or an additional fabric layer in the article of Worley, motivated by the desire to create an article with improved flexibility and strength.

9. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Worley et al. (US 2003/0054141), as shown above, in view of Buckley et al. (US 2002/0164474). Worley et al. disclose the claimed invention except for the teaching that the polymeric material which contains the phase change material is an elastomeric material.

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Buckley disclose composite material useful in making garments such as socks, gloves, face mask, wet suits, or boot liners (abstract). The material comprises phase change material that has been incorporated into a flexible matrix [0012]. Suitable matrix materials include thermoplastic elastomers [0043]. It would have been obvious to one having ordinary skill in the art to have used Buckley's thermoplastic elastomer as the polymer matrix material of Worley et al., motivated by the desire to create a material that has both improved strength and flexibility.

### **Conclusion**

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ula C. Ruddock whose telephone number is 571-272-1481. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel H. Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

UCR

*Ula Ruddock*  
Ula C. Ruddock  
Primary Examiner  
Tech Center 1703

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